

## AP-WP100 Wi-Fi Phone

### Quick User Guide



AddPac Technology





**Caution:** This wireless device may have radio interference and is not recommended to be used for the service related to the safety of life.



## Major Features

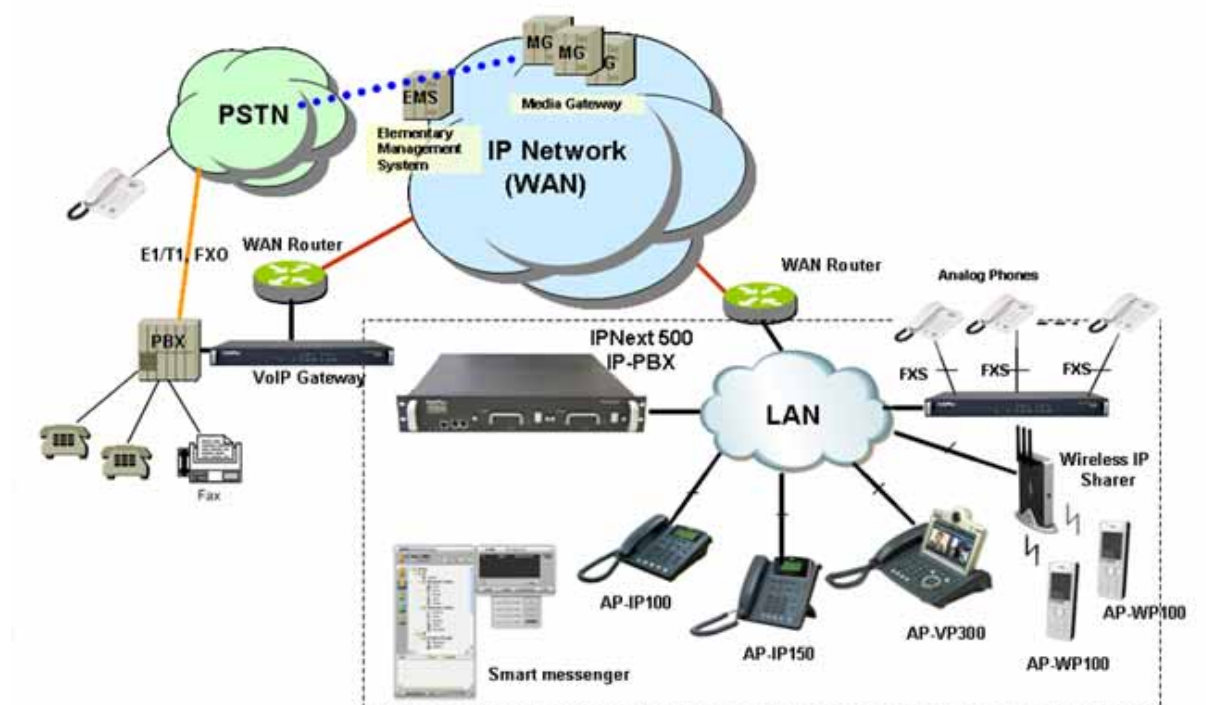
### Overall

- » Speaker Phone
- » A Variety of Key Features (ie. Push-to-Talk service)
- » Voice Mail Interworking with the AddPac IP-PBX
- » SIP-based VoIP Signaling  
Optimal Voice Quality by applying QoS to Cope with many different delays and Packet Errors in Internet
- » Large Graphic LCD Size : 220 x 176 260K Color 2 inch TFT LCD
- » Flash Memory 32MByte, mSDRAM 32MByte
- » Audio Input/ Out Interface for Headset and external Speaker
- » Wireless : IEEE802.11b/g Support

### Network Service

- » High-performance IP-Routing Capability with Reliability
- » Traffic Queuing, and SNMP MIB v2 for Network Management Features
- » Standard & Extended Access List for Security Functions
- » IP Accounting, and Debugging/Diagnostics, etc.
- » DNSProxy, UPnP, MAC Address Filter Service

## Network Configuration Diagram



## Hardware Specification

Micro processor	High Performance RISC CPU Architecture	
<b>Memory</b>	Flash Memory	32Mbyte
	Main Memory	32Mbyte SDRAM
<b>Wireless</b>	IEEE 802.11 b/g Support	
	Operating Frequency : 2412 MHz ~ 2472 MHz	
	802.11g : 54, 48, 36, 24,18, 12, 9, 6Mbps, Auto Rate	
	802.11b : 11, 5.5, 2, 1Mbps , Auto Rate	
	Operating Channels : 13 channels	
	Output power : under 10 mW	
<b>Audio Interface</b>	MIC-IN, Receiver Out, Speaker Out, Head Phone Out	
	Modulation : CCK, OFDM	
<b>Key Pad</b>	23 Keys (Front) + 4Keys (Side), 8 Back Light LEDs	
<b>IO Port</b>	Ear-phone jack 2.5mm, 4 Contact	
	24PIN Data Connector	
	- USB Device, RS232 TTL, Battery Charge 4.2V or 5V(USB)	
	3PIN Battery Charge Connector	
<b>Power &amp; Operation Environments</b>	Power Requirement	Battery : 3.7V, 1330mAh Lithium Polymer Battery (Inner Pack Type)
	Operating Temperature	-10°C to + 50°C
	Storage Temperature	-40°C ~ +85°C (-40° ~ +185°F)
	Relative Humidity	5% ~ 95% (Non-condensing)

## Software Specification

Basic Network Protocol	ARP, IP, IPv6, TCP, UDP, ICMP, ICMPv6, SCTP, IGMP, MLD	
<b>Routing Protocol</b>	IPv4 : Static, IPv6 : Static	
<b>IPv4 Address Configuration</b>	Fixed (Static)	
	EUI-64	
	Autoconfig (Neighbor Advertisement and Solicitation)	
<b>IPv6 Address Configuration</b>	Fixed (Static)	
	EUI-64	
	Autoconfig (Neighbor Advertisement and Solicitation)	
<b>Service Protocol</b>	FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server	
	DNS Resolver , DDNS(nsupdate)	
	Syslog	
	IPv4/IPv6 policy control (QoS)	
<b>Audio Service &amp; Signaling Protocol</b>	VPDN (Virtual Private Dial-up Network : L2TP Server)	
	Voice Codec	
	- G.711,G.726, etc.	
	SIP Signaling Stack Support	
	SSCP (Smart Service Control Protocol) Protocol for AddPac IP-PBX	
	Interworking : AddPac Proprietary	



	Enhanced QoS Management Features for Voice Traffics
<b>Miscellaneous</b>	Cisco Style CLI
	Standard & Extended IPv4/IPv6 Access List
	Multi-level User Account Management
	IP accounting
	STUN Client
<b>WIFI Security</b>	WPA (WIFI Protected Access)
	Support 802.11i Security standard through implementation of AES/CCMP and WEP with TKIP security mechanism
<b>QoS</b>	Support 802.11e Quality of Service (QoS)
<b>Interoperability</b>	Complying with WECA WIFI
<b>Security Functions</b>	Standard & Extended IP Access List
	Access Control and Data Protections
	Enable/Disable for Specific Protocols
	Multi-Level User Account Management
	Auto-disconnect for Telnet Sessions
<b>Operation &amp; Management</b>	System Performance Analysis for Process, CPU, Connection I/F
	Configuration Backup & Restore
	Debugging, System Auditing, and Diagnostics Support
	System Booting and Auto-rebooting with Watchdog Feature
	System Managements with Data Logging
<b>Other Scalability Features</b>	IP Traffic Statistics with Accounting
	Network time Protocol(NTP) Support



## Using the Phone

The Different Parts and Button Features of Your AP-WP100



**AP-WP100 turns off LCD power if the phone is not used for more than 10 second. After 20 seconds the phone enters the power-saving mode.**

**\* Press END to exit from the power-saving mode.**

**If you press and hold END for more than 3 seconds, the power is turned on or off. During the phone conversation, please do not press and hold END for a long time**

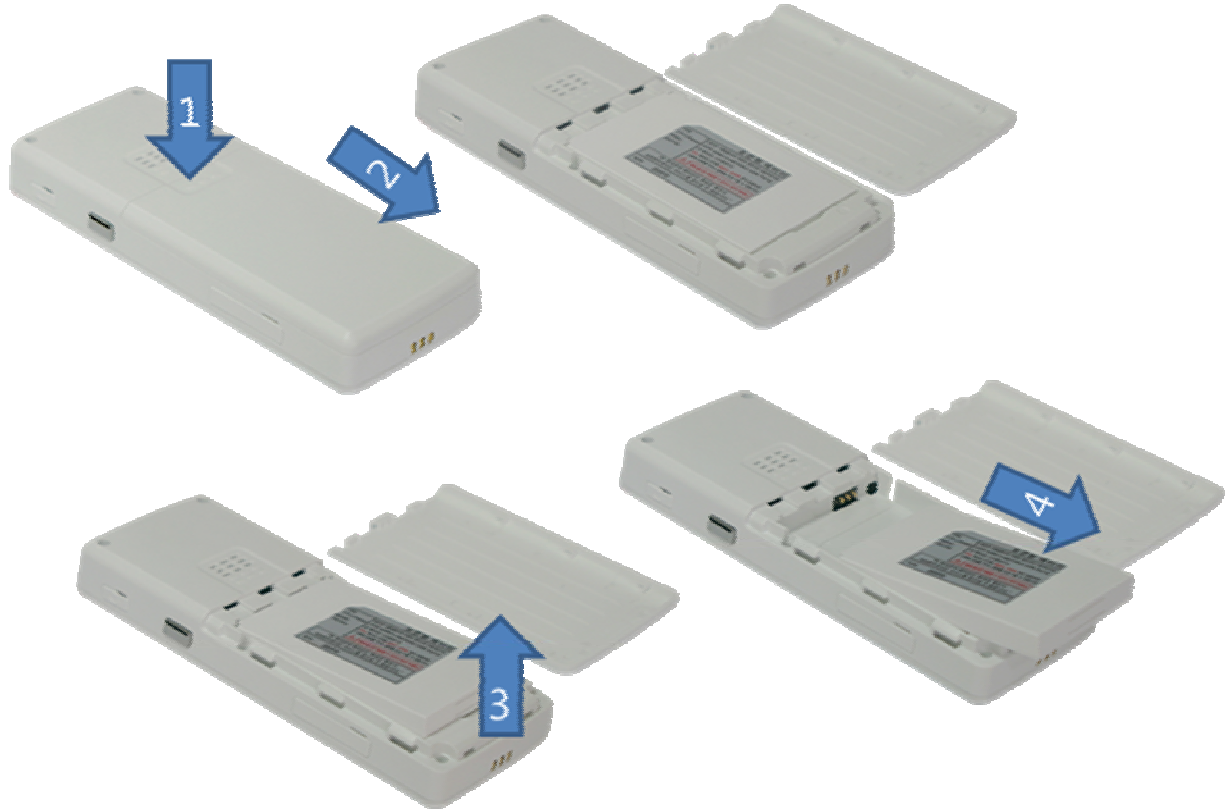


### Removing the Battery

Push the battery cover downward while pressing the battery cover release button to open. Lift up the lower part of the battery and slide down to remove.

### Installing the Battery

*\*To install the battery, reverse the procedure shown in the following pictures.*



### Turning-Off/On the Power

If you press END and hold for more than 3 seconds the power is turned on and if you press and hold more than 3 seconds again the power is turned off.



When the power is turned on, the following picture is displayed on the LCD screen.





When the power is turned off normally, the following picture is displayed on the LCD screen



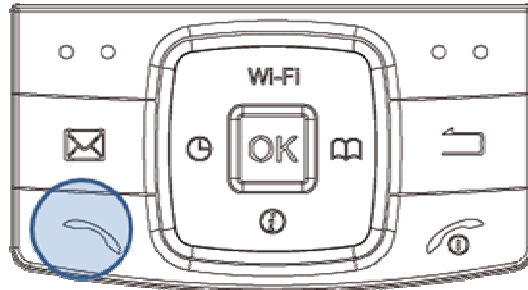
\* If the phone is not used for more than 10 seconds, it is changed to the power saving mode as the LCD and button LED lamps are turned off. **If you want to use again, press and hold END once.**



## Making and Receiving a Call

### Making a Call by Entering a Phone Number

Enter a number that you want to call and then press SEND.



\* As AP-WP100 is registered to the IP-PBX as an extension, you have to enter an external outgoing number first

(Example for the external outgoing number: 9 or 8 + Phone number)

### Ending a Call

To end a call, press END.



### Making a Call by a Number Stored in Recent Call List

Press SEND at the Standby Screen state.

You can search and select the number in the recent call list by using UP/DOWN and then press SEND.



## Menu

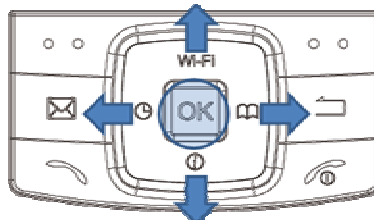
### Using the Button

Press MENU to display 8 main menus.



To enter each main menu

1. Use navigation key to select the menu and then press OK



2. Press the speed dial number (1~8) of each main menu on the numeric keypad.



\* Please refer to the next page for the menu table consists of sub-menus for each main menu.



## Menu Table

The menu Table of AP-WP100 is organized as to follow:

Main Menu	Sub-Menu	Description of Features
<b>1. PHONE BOOK</b>	1. Search	Search the stored phone number by number/name/speed dial number
	2. Add Contact	Register a new number to the phone book
	3. Groups	You can add/delete/change a group stored in the phonebook
	4. Speed Dial	Add/delete/change a speed dial number.
<b>2. MESSAGE</b>	1. New Message	Write a message
	2. InBox	Check the received message.
	3. OutBox	Check the sent message
	4. Saved	Check the saved message.
<b>3. ORGANIZER</b>	1. Alarm	Set the alarm.
<b>4. DISPLAY</b>	1. Set Lighting	Set the backlight duration and brightness of the LCD and buttons
	2. Backgnd Image	Set the graphic for the main screen.
	3. Language	Set the language to Korean or English
	4. Menu Type	Select back/white menu type.
<b>5. SOUND</b>	1. Volumes	Adjust the volume for bell/button/phone call.
	2. Bell Sound	You can select up to 8 different bell sound.
	3. Button Tone	Select mute/basic/piano tone.
	4. Bell / Vibration	Select bell/vibrate/vibrate once/ vibrate and ring at the same time or ring first and then vibrate
<b>6. CALL SETTING</b>	1. Auto Areacode	Set the automatic area code
<b>7. SYSTEM SETTING (User Mode)</b>	1. Search WiFi	Search the wireless Access Point and then register to the profile.
	2. Profile Setup	Delete/Change the registered profile to WiFi search.
	3. Menu Lock	Block an unauthorized access to a specific menu by a password
	4. Password	Set a password to be used for the Menu Lock.
	5. Phonebook Reset	Initialize the data in the stored phonebook.
<b>7. SYSTEM SETTING (Administrator Mode)</b>	1. Search WiFi	Search the wireless access point and then register to the profile
	2. Profile Setup	Edit/ Delete the registered in WiFi Search
	3. SIP Setting	Specify SIP server address and registration information (phone number/ID/Password)
	4. Audio Codec	Select a voice codec
	5. SMS Setting	Configure SMS settings of IPNext Call Manager
	6. Menu Lock	Block the unauthorized access to a specific menu by setting a password
	7. Password	
		. Set the password to be used for the Menu Lock.
	8. Phonebook Reset	Initialize the stored data of the phone book
	9. Factory Default	Initialize all the settings back to the factory default
<b>8. PHONE INFO</b>	1. Network Info	Check the IP information of the connected wireless network
	2. WiFi Status	Check the status of the connected wireless Access Point
	3. My Phone Num.	Check the phone number registered to the SIP server.
	4. Firmware Ver.	Check the firmware version of the phone



5. MAC Address	Check the MAC address of the phone
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**<SYSTEM SETTING – Administrator Mode Acce**

- Press #233722# and the menu button, then Admin Password window appears
- Admin password : 2337



#### Icon Description

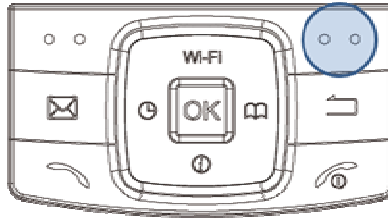
You can check the operational status from the following icons on the top of the LCD screen:

	Disconnected to WiFi <b>* The wireless connection is in the abnormal status. Retry connection by using WiFi Search.</b>
	The normal connection of WiFi status and Signal Strength. <b>*The signal strength is indicated in 6 different bar types.</b> 
	Connected to voice call <b>*The call is being processed normally</b>
	Service is not available <b>*The authentication registration to the SIP server is failed. Retry registration.</b>
	Ringtone ON
	Etiquette mode Vibration ON or Vibrate once
	Ring & Vibrate at same time or Ring then Vibrate
	Etiquette mode Mute ON <b>*.To release or set Etiquette mode, press and hold asterisk * for a while</b>
	Alarm ON
	New SMS message received
	All function Locked
	Battery level <b>*The battery level is indicated in 6 different levels from Full to Charging cut off. Recharge your battery if the battery level reaches Charging cut off state immediately.</b> 



## Entering text

To enter the phone number, write a message, set WiFi profile and enter text, refer to the following text entry method.



\* You can move to text entry mode by pressing the soft key F2 as it is shown in the picture above.

( / )

	Numbers	English Capital	English Small
1	2	A→B→C	a→b→c
2	3	D→E→F	d→e→f
3	4	G→H→I	g→h→i
4	5	J→K→L	j→k→l
5	6	M→N→O	m→n→o
6	7	P→Q→R→S	p→q→r→s
7	8	T→U→V	t→u→v
8	9	W→X→Y→Z	w→x→y→z

\*Press the button once, twice or three times in order to enter first, second and third alphabet on the button.

## Special Character and 16 Hex Characters

	Numbers	Special Characters	Hex Character
1	1	! " #	1→ a
2	2	\$ % &	2→ b
3	3	' ( )	3→ c
4	4	* + ,	4→ d
5	5	- . /	5→ e
6	6	: ; <	6→ f
7	7	> ? @	7
8	8	\ ^ _	8
9	9	{   }	9



## Installing

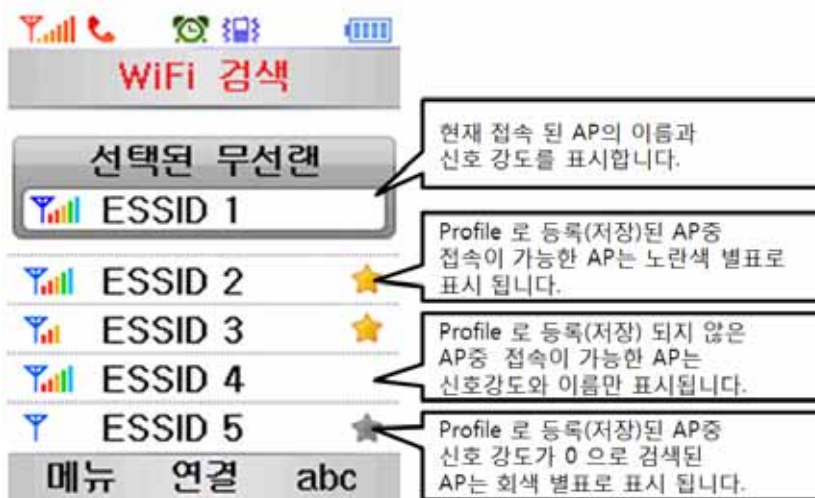
To configure the settings of AP-WP100, set the wireless LAN connection and SIP server registration.

### Registering the Wireless LAN Connection

1. Search the wireless Access Point (AP) by pressing WiFi on AP-WP100



2. The connectable AP appears
3. The icons of signal strength for authentication method is described below
4. The registered profile is marked with yellow star



5. Choose the connectable AP and press F1 soft key and then select Add Profile of the third option. The selected ESSID is set to the profile name.



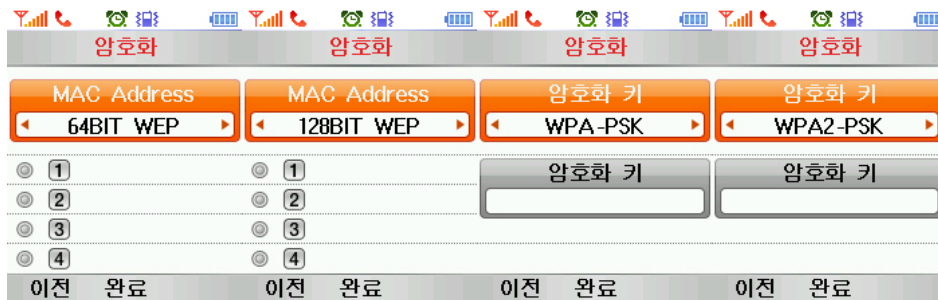
6. Depending on AP settings, choose the option whether to use encryption or not to use encryption.





7. If you choose to use encryption, the following 4 methods (WEP 64BIT WEP 128BIT WPA-PSK WPA2-PSK) are available for selection.

8.



After using encryption is set, specify the IP information to be used from the profile.



9. For setting the Static IP method, enter the IP address, net mask, primary router information.

10.



## SIP Server Registration

1. To register the user name and password, you need the information in the following picture.  
\*For SIP server authentication information, ask the administrator of SIP server (IPNext Call Manager)

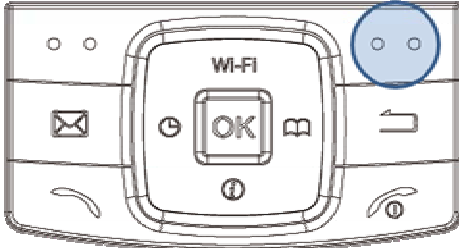
SIP Protocol		SIP Protocol	
사용자 이름	<input type="text"/>	보조 서버	<input type="text"/>
비밀번호	<input type="password"/>	내 번호	<input type="text"/>
기본 서버	<input type="text"/>	e.164 Regist	<input type="text"/>
		설정	
이전	완료	한글	이전
		완료 123	



### Using the Supplementary Features

1. Call Pickup

To pick up a call sent to the group (pick-up group), press Soft key F2.

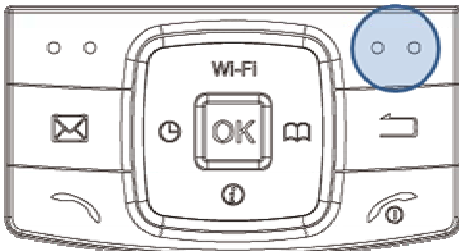


\* Call Pickup requires the additional settings. Ask your administrator.

2. Call Forward

To direct a call to another phone user with extension or external phone line, press Soft key F2 and the phone number

After the forwarded phone user responds the call, press END.



3. Changing to the Speaker During the Phone Call

If you want change to the speaker of AP-WP100 during the phone , press Push to Talk button the right side of the main body.

- You can turn ON/OFF by pressing PTT again



## Troubleshooting

### Checking Network Connection


Check the AP and network connection status, by pressing the info button on AP-WP100.



\* The specified IP information and connected AP information are displayed by pressing Info as it is displayed in the picture below

모든 네트워크 정보	모든 네트워크 정보	모든 네트워크 정보
IP 어드레스 172.17.120.59	기본 DNS 없음	MAC Address 00:0f:b5:96:c7:c2
넷 마스크 225.225.0.0	보조 DNS 없음	암호화 없음
기본라우터 172.17.1.1	ESSID A_AP7	채널 10ch
확인	확인	연결

### Checking SIP Server Registration

.If SIP server is not connected, the icon bar on the top displays , then retry the registration.





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